

WHAT IS CLAIMED IS:

1. A method of representing an arc as a series of conic curves, the method comprising:
defining an arc; and
dividing the arc into a plurality of sub-arcs, each sub-arc being defined by a conic curve definition.
2. The method of claim 1, wherein each of the sub-arcs is 90 degrees or less.
3. The method of claim 1, further comprising:
determining a bounding box; and
calculating vector angles for a starting vector and ending vector.
4. The method of claim 1, further comprising:
determining a starting point and ending point of each of the plurality of sub-arcs, wherein the plurality of sub-arcs includes at least a first sub-arc and a second sub-arc and further wherein the ending point of the first sub-arc is the starting point of the second sub-arc.
5. The method of claim 1 further comprising:
calculating a shape parameter for the conic curve definition.
6. The method of claim 5 further comprising:
determining coordinates of a control point and a mid point of an arc chord.
7. The method of claim 6, further comprising:
defining a control point segment between the mid point of the arc chord and the control point.
8. The method of claim 7, further comprising:
calculating the shape parameter based on a ratio of a distance between the mid point of the arc chord and an intersection of the control point segment and the sub-arc, and a length of the control point segment.
9. The method of claim 1, wherein a direction of the arc is clockwise.
10. The method of claim 1, wherein a direction of the arc is counter clockwise.
11. The method of claim 1, further comprising:
transmitting the conic curve definitions to an imager.

12. A computer-readable medium having computer-readable program code embodied therein, the computer-readable program code performing the method of claim 1.

13. An apparatus for translating an arc definition into a series of conic curve definitions, comprising:

an arc definer, which defines the arc using a bounding box, starting vector and ending vector; and

an arc divider, which divides the arc into component sub-arcs.

14. The apparatus of claim 13, wherein the arc divider further determines a starting point and ending point for each sub-arc.

15. The apparatus of claim 14, further comprising:

a control point determining module, which determines the control point for each sub-arc, based on the intersection point of the two lines which are tangent to the endpoints of the sub-arcs; and

a shape parameter module which calculates a shape parameter, based on the ratio of a distance between the mid point of the arc chord and an intersection of a control point segment and the sub-arc, and a length of the control point segment.

16. The apparatus of claim 15, further comprising:

an input/output interface which outputs the ending point, control point and shape parameter for each sub-arc to an imager.